

Saturday 11/10/2007 at 12:20 PM

Name:

(b) (6)

Category:

6XA

Status:

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Comments:

Addressed to the Regional Administrator

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Contact:

Number:

Subject:

Texcom Toxic Waste Dump in Montgomery County

Message: Dear Mr. Green,

I write today asking for your help in fighting the installation and operation of Texcom Gulf Disposal Industries' four Class 1 injection wells (that will be disposing of such toxins as ethylene, glycol-based anti-freeze, paint thinners, acids, industrial wastes and many more toxins from five states) to be located in Montgomery County. It is my belief that the intended site for the toxic waste injection well is inappropriate due to the fact that this area is too heavily populated to tolerate the unsightly odor and noise that would be a constant during installation and operation of the site. I also fear the contamination of our water supply (And I am just learning of these concepts, but I understand that the geological conditions in this area are not conducive to this sort of application due to fissures, fault lines and old abandoned oil wells that are of unknown condition. I also understand that the water supplies that would be affected are the Jasper and Evangeline Aquifers that supply water to Conroe, The Woodlands and eventually Houston.), the increased traffic (causing traffic accidents and spills of the toxic waste), and deterioration of our roads would make living here intolerable. There is a citizen's non-profit organization already in the works called Crow (Citizens-Residents Oppose Well) that has a wealth of information concerning the proposed well. If you are interested in contacting the Crow organization their email address is crow1@consolidaed.net and their phone number is 936.756.1464 or 936.499.7173 (Jennifer Real). They are having a meeting next Thursday, November 15, at 6:30pm to be held at Armstrong Elementary (the address is 110 Gladstell St, Conroe Texas 77301). I am asking today for your help and it is my hope that you will do whatever is in your power to help us fight this impending disaster. Thank you for your time and your continued service.

Sincerely,

(b) (6)

Assigned To:

Assigned Date:

Edit History:

07/11/14 06:54 AM Edited by Thomas Nelson - Category: 6XA
07/11/10 01:20 PM Created by Anonymous - Category:

Thank you Mr. (b) (6) for writing to EPA, Region 6, and for bringing up your concerns with the Class I well injection operations proposed by TexCom Gulf Disposal (TGD) in your area of residence. In response to your request, we wish to take this opportunity to offer some comments on how the Class I injection well permitting process works in Texas, and on the oversight role that EPA plays in this process. We hope that this information will assist you in your discussions of the proposed injection operations.

As you may very well know by now, injection well operations in the United States fall within the authority of the Underground Injection Control (UIC) program, authorized by the Safe Drinking Water Act (SDWA). EPA is the federal agency charged with the implementation of the UIC program nationwide, with the authority to delegate the implementation of this program to state agencies. In Texas, the authority for implementing the portion of the UIC program that involves the operation of Class I injection wells has been delegated to the Texas Commission on Environmental Quality, TCEQ. As a result, processing of permit applications and the issuance of permits for Class I injection wells fall within the jurisdiction of TCEQ's UIC program, which has been approved by EPA, meaning that the TCEQ's UIC rules were found by EPA to be at least as stringent as the federal regulations.

As the Texas UIC program oversight agency, EPA Region 6 monitors TCEQ's level of permitting and compliance assurance activities, for the purpose of ensuring that the regulatory standards and the terms and conditions of the program delegation document are met. EPA Region 6 accomplishes this through frequent consultations on the technical and regulatory aspects of program implementation, information exchange, file reviews and by conducting an annual evaluation of TCEQ's UIC activities following the submittal of a calendar year activities report by TCEQ. Consultations on the matter of an injection well UIC permit application may take place more frequently whenever a proposed injection operation triggers a high level of attention from the public. However, the authority for issuing or denying the UIC permit in question is almost certain to ultimately reside with TCEQ.

TCEQ has rules in place that provide for public participation in its injection well permit decisions. Therefore, information in the operators' application packages filed with the Commission is generally made available for public review. The members of your citizens group, CROW, may be able to review TGD's application package as they may consider necessary.

In processing injection well permit application packages, UIC review teams within the permitting agencies must verify that the injection of fluids into a geological formation will not result in the vertical migration of those fluids towards underground sources of drinking water (USDWs). Typically, one of the first steps a UIC review team takes is to make sure that the application package contains all of the information required for completing this fundamental task, in other words, it checks for package completeness. If an application package is found to be incomplete, a notice of deficiency will be sent to the operator, and the review process will be placed on hold by the agency until the application package has been made complete within a specified period of time. Otherwise the application will be returned to the operator. However, the application may be re-submitted later, after the deficiencies have been corrected.

Once the application package is deemed complete, the UIC review team will examine information on all wells located within a circular area surrounding the proposed injector, usually referred to as the area of review (AOR). TCEQ rules stipulate that this AOR must have a radius of 2.5 miles for Class I wells. The wells located within this AOR will be examined for total depth, in order to determine if they have penetrated the proposed injection zone, and for mechanical condition, in order to establish if they might provide a flow path which would allow the injected fluids to reach any USDWs that may be present in the area. The evaluation of the mechanical condition of a well may involve verifying hole and tubular diameters, the amount of cement placed behind casing strings and the size and location of the cement plugs that may have been placed inside a plugged and abandoned (P&A'd) well.

Information about the geological features present in the area surrounding the proposed injection operation, which has also been provided by the operator, is evaluated as well. For example, the layer of rock immediately above the injection interval is evaluated for its ability to keep the injected fluids within the injection interval. The information on any faults or fractures that may be present in the area of interest, complemented with historical operations data where available, may assist the UIC review team in determining whether these faults and fractures may (or may not) provide a path for any unwelcome migration of the injected fluids. The UIC review team may determine that, based on the area's geology, as documented by the operator, the injected fluids will remain within the injection zone, and that, from this standpoint, there is no reason for denying a permit application.

The permitting agency's UIC review team will also evaluate the pressure build up that the injection operations will cause inside the receiving formation in order to identify locations around the injection well (such as improperly P&A'd wells) where potential for endangerment of the USDWs may exist. This evaluation involves the use of mathematical models which require information on the current reservoir pressure and on the characteristics of the injection interval such as porosity, permeability and thickness. Information on the characteristics of the injected and receiving formation fluids is also required. This evaluation is initially based on some operator proposed injection rate, injection pressure and duration of the operations. If a location with potential for endangerment is identified through this engineering analysis, for example: an unplugged wellbore in the area, well remediation work may be required by a permit condition, or the proposed operating parameters may be adjusted so that the identified point

with potential for endangerment no longer falls within the zone of endangering influence (ZEI) of the proposed injector(s). If after a diligent process of data verification and validation the UIC review team determines that there are no locations within the ZEI which might potentially provide opportunities for endangerment of the USDWs, the team may find no reason to deny the permit application on the account of reservoir pressure build up effects.

By regulation, injection well permits require that injection take place using tubing and packer. A string of smaller diameter pipe (the tubing) is run inside the well with a packer near the string's bottom. The packer assembly seals the annular space between the tubing and the production casing at a point near the top of the perforated injection interval, ensuring that the fluids injected through the tubing will follow a flow path leading to the intended target injection interval. In addition, Class I injection well permits generally require that this annular space be completely filled with a non-corrosive fluid, and that a positive annular pressure be maintained at the surface at all times and continuously recorded. Wellheads can be equipped with an alarm system set to go off whenever this annular pressure changes outside a specified range of values during operations, signaling a casing or tubing leak.

Injection well permits also require that wells periodically pass a mechanical integrity test (MIT). These tests may involve pressurizing the annular space to maximum levels and for periods of time specified in the rules and regulations. These annular pressure tests are designed for determining whether the tubing, packer, casing and surface fittings are in a condition sound enough to ensure that the injected fluids will continuously flow towards the target injection interval. MITs may also involve the placement of radioactive tracers in the injected stream and the use of a tool designed to detect the presence of these radioactive tracers outside the casing walls, signaling the vertical movement of injected fluids. The UIC program rules and regulations require that injection operations be halted if leaks are detected during an MIT or during operations. Injection operations may be initiated/resumed after remediation action is taken and the well is successfully re-tested.

It is possible that some variations of the review process just discussed may be needed to conform to the specific conditions of a given proposed injection site, since each well is different. At the end of the review process, the UIC review team may find that an existing well, which has been proposed for conversion to injection, was completed according to the conditions required for the issuance of a UIC permit. If this is the case, and no other concerns were brought up during the review process, the UIC review team will likely recommend that the permitting agency grant a permit application per the authority vested upon that agency by the UIC program rules and regulations. After a newly permitted well passes the initial MIT, the permitting agency issues an authorization to inject.

At the time applicants file an injection well permit request, they are required to provide individual notices to all affected parties, namely, surface owners and operators in the areas adjacent to the proposed injection operations. A notice will also be published in local newspapers. These notices typically inform people that they can challenge or protest the requested permit by a certain date. If enough people protest the proposed injection operations, the permitting agency's director may publish a public notice and schedule a hearing. At this hearing, citizens and operators, or their consultants and representatives, may raise their concerns.

Concerns with the validity or accuracy of the historical, geological and engineering data, and/or arguments seeking to justify the citizens' dissatisfaction with the review process will likely be presented at these hearings. If these arguments fail to shake the confidence on the UIC review team's findings that the flow path of the injected fluids leads to the targeted injection interval, and that these fluids will remain confined to this interval, the permit will likely be approved. A recommendation from the UIC review team for the issuance of a permit is an indication that the team considers that the information in the application package is representative and adequate. As a result, the burden of proving that the data and/or the review process fall below the regulatory standards resides with the protesters.

If the concerns and arguments presented at the hearing do not address issues within the scope and authority of the UIC program, the permitting agency will likely grant the permit application. Examples of issues that do not fall within the scope of the UIC program rules and regulations are those related to "not on my backyard" policies, noise, heavy traffic, odors, surface spills, etc.

Citizens opposing a proposed injection operation may benefit from making sure that details on the drilling and completion of the area's privately owned water supply wells will be readily available. The citizens facing a situation like this may wish to contract the services of a reputable laboratory and have water samples from their supply wells tested, so that baseline conditions of their ground water can be clearly identified before injection operations begin. In the unfortunate event that the area's ground water composition changes, this measure may assist in determining whether this ground water source may have been adversely affected by an underground injection operation.

Protesting citizens also may benefit from working as a group and expect to enter into a complicated, and possibly lengthy, negotiation process with the applicant. For this reason, they may want to secure assistance from consultants, likely from professionals in the fields of geology, hydrology, reservoir engineering and law. If no technical issues can be successfully raised, the citizens may want to negotiate the adoption, by the operator, of measures which would alleviate the cause of their concerns (i.e.: increased lighting, traffic, noise, security, spill

prevention measures, etc.). Consultants may be able to provide guidance on which agencies may have authority over non-UIC issues and on which ones may be able to assist with these issues.

We hope that the above discussion will provide a starting point for understanding the UIC program. We also hope that you may now have some basic information on the permitting process for controlled underground injection operations and on some of the points of discussion that may be relevant when addressing concerns related to such operations. The preceding is not intended as a substitute for professional advice, and it can not be an all inclusive discussion since field experience shows that no two wells are completely alike. You may now be able to appreciate why these permit applications are evaluated on a "case by case" basis. If you have any questions, please feel free to e-mail or call me at (214) 665-8092. Thank you again for taking the time to contact EPA, Region 6 on this most important issue. Sincerely,

Jose Eduardo Torres - 6WQ-SG
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